SHERWOOD INDUSTRIES IS AN ENVIRONMENTALLY RESPONSIBLE COMPANY. THIS MANUAL IS PRINTED ON RECYCLED PAPER.

WARRANTY REGISTRATION
enviro.com/warranty

Enviro EG28 BV

BY: SHERWOOD INDUSTRIES LTD

OWNER'S MANUAL

PLEASE KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

WHAT TO DO IF YOU SMELL GAS

- Open windows/Extinguish any open flame.
- Do not try to light any appliance.
- Do not touch any electrical switch or use any phone in your building.
- Immediately call your gas supplier from a neighbour's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

This appliance may be installed in an after market permanently located, manufactured (mobile) home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier.

FOR YOUR SAFETY: Do not store or use gasoline or other Flammable vapours and liquids in the vicinity of this or any other appliance.

Massachusetts installations (Warning): This product must be installed by a licensed plumber or gas fitter when installed within the Commonwealth of Massachusetts. Other Massachusetts code requirements: Flexible connector must not be longer than 36in., a shut off valve must be installed; only direct vent sealed combustion products are approved for bedrooms/bathrooms. A carbon monoxide detector is required in all rooms containing gas fired direct vent appliances.

EG28-121

Safety Precautions

FOR SAFE INSTALLATION AND OPERATION OF YOUR "ENVIRO" HEATER, PLEASE CAREFULLY READ THE FOLLOWING INFORMATION:

- All ENVIRO gas-fired appliances must be installed in accordance with their instructions. Carefully read all the instructions in this manual first. Consult the building authority having jurisdiction to determine the need for a permit prior to commencing the installation.
- **NOTE:** Failure to follow these instructions could cause a malfunction of the fireplace, which could result in death, serious bodily injury, and/or property damage.
- Failure to follow these instructions may also void your fire insurance and/or warranty.

GENERAL

- Installation and repair should be done by a qualified service person. The appliance should be inspected before the first use and, annually thereafter by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative the control compartments, burners and circulating air passageways of the appliance be kept clean.
- Due to high temperatures, the appliance should be located out of high traffic areas and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the appliance.

FOR YOUR SAFETY

- Installation and service must be performed by a qualified installer, service agency or gas supplier.
- This installation must conform to local codes or, in the absence of local codes, to the current CAN/CGA-B149 installation code (Canada) or National Fuel Gas Code ANSI Z223.1.2 (USA).
- To prevent injury, do not allow anyone who is unfamiliar with the stove to operate it.

- **To prevent injury, if the pilot or pilot and burners have gone out on their own, open the glass door and wait 5 minutes to air out before attempting to re-light the stove.**

- Always keep the area around this appliance clear of combustible material, gasoline and other flammable liquids and vapours.
- This appliance should not be used as a drying rack for clothing or for hanging Christmas stockings/ decorations.
- Due to the paint curing on the stove, a faint odor and slight smoking will likely be noticed when the stove is first used. Open a window until the smoking stops.

Always connect this gas stove to a vent system and vent to the outside of the building envelope. Never vent to another room or inside the building. Make sure the specified vent pipe is used; properly sized and of adequate height to provide sufficient draft. Inspect the venting system annually for blockage and signs of deterioration.

WARNING: Failure to position the parts in accordance with the diagrams in this booklet, or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

WARNING: Do not operate with the glass front removed, cracked or broken. Replacement of the glass must be done by a licensed or qualified service person.

- Never use solid fuels such as wood, paper, cardboard, coal, or any flammable liquids, etc., in this appliance.
- Do not use this heater if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control or gas control systems that have been under water.
- Do not abuse the glass by striking it or slamming the door shut.

Table of Contents

Safety Precautions....2
Table of Contents....3
Codes And Approvals....4
Specifications....5
    Dimensions....5
    Rating Label Location....5
Operating Instructions....6
    Lighting Instructions....6
    Adjusting The Venturies....7
    Normal Sounds During Operation....7
Maintenance and Service....8
    Opening The Door....8
    Cleaning The Glass 8
    To Replace Door....8
    Cleaning The Inside Of The Firebox....8
    Cleaning Plated Surfaces....9
    Blower Removal....9
    Blower Removal....9
    Fuel Conversion....10
Initial Installation....12
    Preparation For Installation....12
    Clearances to Combustibles....12
    Flue Gas Spill Switch....12
    Venting....13
    Manufacturer's General Venting Guidelines....13
    General Venting For The EG28....13
    Termination....14
    Installation Into An Existing Chimney....14
    Straight Vertical Installation....15
    Electrical Requirements....16
    Gas Line Connection and Testing....17
Secondary Installation....18
    Installation of Log Set and Embers....18
Trouble Shooting....20
Parts List....21
Parts Diagram - Chassis....23
Parts Diagram - Gas Tray & Door....24
Warranty....25
Installation Data Sheet....26

Codes And Approvals

BV: This Vented appliance draws all of its combustion air from the dwelling and must be vented using listed B or L vent. May also be vented through a conventional chimney using a chimney liner kit.

This appliance has been tested and approved for installations from 0 feet to 2000 (610 m) above sea level.

In the USA: The appliance may be installed at higher altitudes. Please refer to your American Gas Association guidelines which state: the sea level rated input of Gas Designed Appliances installed at elevations above 2000 (610 m) feet is to be reduced 4% for each 1000 feet (305 m) above sea level. Refer also to local authorities or codes which have jurisdiction in your area regarding the de-rate guidelines.

In Canada: When the appliance is installed at elevations above 4500 feet (1372 m), the certified high altitude rating shall be reduced at the rate of 4% for each additional 1000 feet (305 m).

- This appliance has been tested by INTERTEK (**Warnock Hersey**) and found to comply with the established VENTED GAS FIREPLACE HEATER standards in CANADA and the USA as follows:

VENTED GAS FIREPLACE HEATER (EG28 BV NG/LPG)

TESTED TO: ANSI Z21.88a-2003/CSA 2.33a-2003 VENTED GAS FIREPLACE HEATERS

CAN/CGA 2.17-M91 GAS FIRED APPLIANCES FOR HIGH ALTITUDES

CSA P.4.1-02 TESTING METHOD FOR MEASURING ANNUAL FIREPLACE EFFICIENCY

This ENVIRO EG28 BV Fireplace:

- Has been certified for use with either natural or propane gases. (See rating label.)
- Is not for use with solid fuels.
- Is approved for bedroom or bed sitting room. (**IN CANADA**: must be installed with a listed wall thermostat. **IN USA**: see current ANSI Z223.1 for installation instructions.)
- Must be installed in accordance with local codes. If none exist, use current installation code CAN/CGA B149 in Canada or ANSI Z223.1/NFPA 54 in the USA.
- Must be properly connected to an approved venting system and not connected to a chimney flue serving a separate solid-fuel burning appliance.
- Are approved for installation on combustible materials (i.e. Wood, carpet or linoleum).
- Is not approved for closet or recessed installations.

IMPORTANT NOTICE (Regarding first fire up): When the unit is turned on for the first time, it should be turned onto high without the fan on for the first 4 hours. This will cure the paint, logs, gasket material and other products used in the manufacturing process. It is advisable to open a window or door, as the unit will start to smoke and can irritate some people. After the unit has gone through the first burn turn the unit off including the pilot, let the unit get cold then remove the glass door and clean it with a good gas fireplace glass cleaner, available at your local ENVIRO dealer.

NATIONAL FIREPLACE INSTITUTE®

NFI

CERTIFIED

www.nficertified.org

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

Specifications

Dimensions:

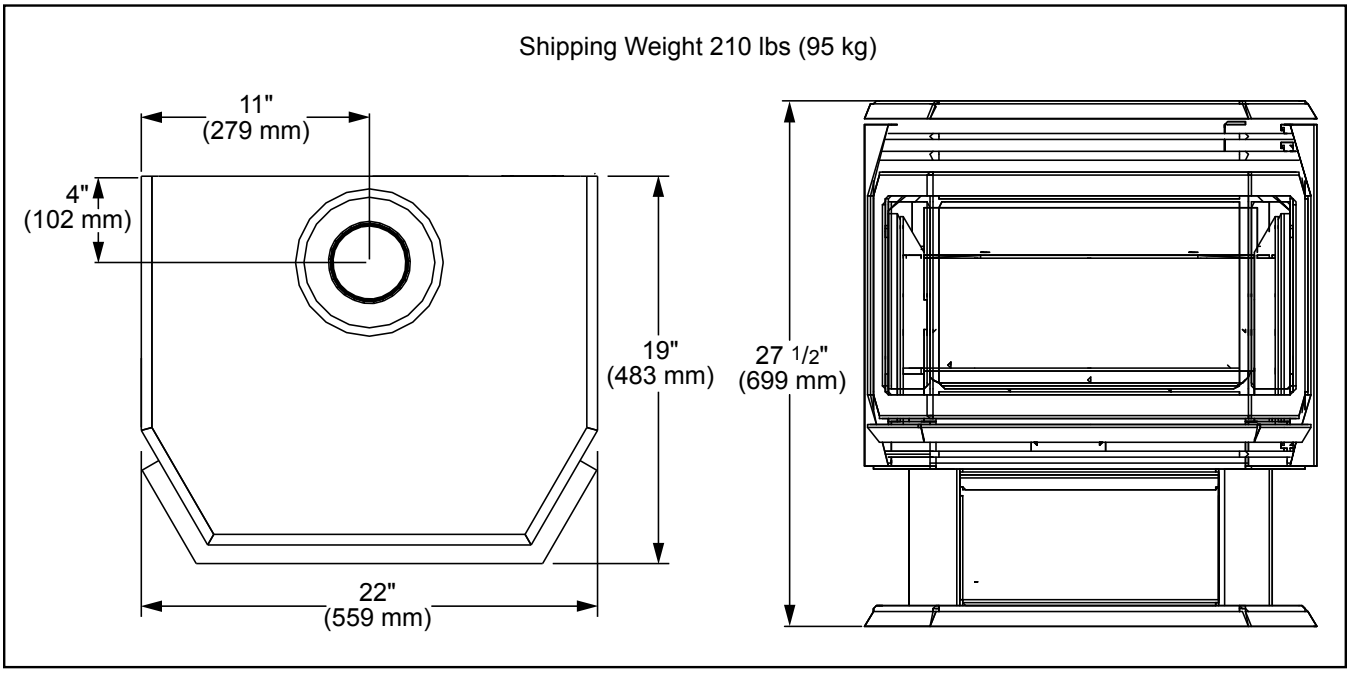


Figure 1: EG28 Exterior Dimensions.

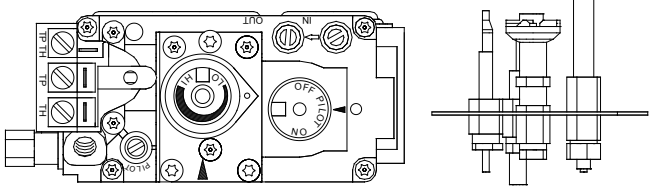
Rating Label Location:

The rating label is found inside the right cabinet side panel.

Operating Instructions

FOR YOUR SAFETY READ COMPLETELY BEFORE OPERATING.

Lighting Instructions:



CAUTION: **Hot while operating. Do not touch, severe burns may result. Keep children, clothing, furniture, gasoline or other flammable vapors away.**

CAUTION: Do not operate this fireplace with the glass removed, cracked or broken. Replacement of the panel(s) should be done by a licensed or qualified person! This appliance needs fresh air for safe operation and must be installed with provisions for combustion and ventilation air. See installation and operating instructions manual. Keep burner and control compartment clean.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage, or loss of life. Refer to owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier. See installation and operating instructions accompanying appliance. Installation and service must be performed by a qualified installer, service agency, or the gas supplier

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

A) This appliance is equipped with a pilot, which must be lit by hand by following these instructions exactly.

B) BEFORE LIGHTING smell all around the appliance area for gas and next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:
Do not try to light any appliance. Do not touch any electrical switch: do not use any phone in your building. Immediately call your gas supplier from a neighbor's phone. Follow the gas suppliers instructions. If you cannot reach your gas supplier, call the fire department.

C) Use only your hand to push in or turn the gas control knob; NEVER use tools. If the knob will not push in or turn by hand, do not try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D) Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Turn off all electrical power to this appliance.
3. Turn off the gas control knob clockwise ↷ to the off position.
4. Open door. Wait flve (5) minutes to clear out any gas. Close door. If you smell gas STOP! Follow “B” in the above safety information. If you do not smell gas go to the next step.
5. Find pilot-located to the right between the front and rear burner. Turn the gas control knob counter-clockwise ↶ to “PILOT”. Push the gas control in fully and hold, keep knob depressed for about 30 seconds after the pilot is lit. Release knob. If pilot goes out, repeat steps 4 through 5.

WARNING: this gas valve has a lockout device, which will not allow the pilot burner to be relit until the thermocouple has cooled. If the knob does does not pop up when released, stop and immediately call your service technician or gas supplier. If the pilot does not stay lit after several tries, turn the gas control knob to “OFF” and call your service technician or gas supplier.

6. Turn the gas control knob counter clockwise ↶ to the “ON” position. Flip the burner switch to “ON” THEN TURN THE “HI/LOW” knob to the desired setting.
7. Turn on the electrical power to the unit.

TO TURN OFF GAS TO APPLIANCE

1. Flip burner switch to “OFF”
2. Turn the gas control knob clockwise ↷ to the “OFF” position.
3. Turn off all electrical power to the appliance if service is to be performed.

Figure 2: Lighting Instructions.

Operating Instructions

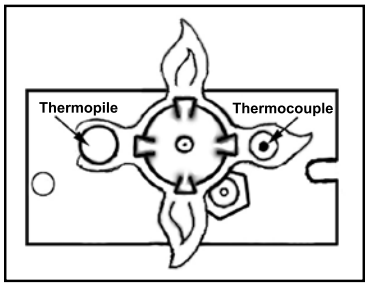


Figure 3: Pilot Burning.

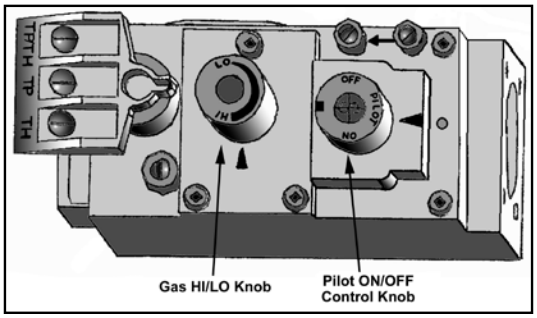


Figure 4: Gas Valve.

Adjusting The Venturies:

- Remove the ash shelf by undoing the screw at each end, pull shelf towards you.
- Remove one screw from the cover plate located below the ash shelf. Loosen the other screw (do not remove) swing the cover plate out of the way and tighten screw down to hold it in place.
- With along screwdriver rotate spring clips to open or close the shutter to the desired setting.

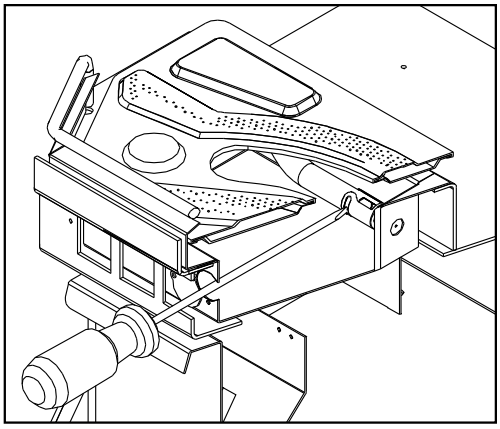


Figure 5: Venturi Adjustment.

The venturies allows the amount of air coming into the fireplace to be adjusted in order to accommodate different climates and venting arrangements. Start the pilot and then the burner. Make sure the pilot flame is burning normally and none of the burner ports are plugged. Let the fireplace burn for roughly fifteen minutes and then examine the flames, compare the flames to Figure 26.

The ideal flame will be blue at the base and light orange above. The flames should be of medium height. If the flames look like this, no venturi adjustment is needed. If the flames are fairly short and mostly blue, the fireplace is getting too much air. Therefore, the venturies should be closed slightly until the correct flames are achieved. Flames that are very orange, with tall, dark, stringy tips, are not getting enough air. Open the venturi until the flames clean up. If the venturi is opened, or closed all the way, and the correct flames cannot be attained, turn off the gas and contact the dealer.

Warning: Incorrect venturi adjustment may lead to improper combustion, which is a safety hazard. Contact the dealer if there is any concern about the venturi adjustment.

Table 1: Venturi Setting

	NG	LP
Venturi Setting	1/16" min.	¼" min.

Normal Sounds During Operation:

Table 2: Normal Sounds

Component	Sound & Reason
EG28	Creaking when heating up or cooling down.
Burner	Light pop or poof when turned off; this is more common with LP units.
Temperature Sensor	Clinking when it senses to turn the blower on or off.
Pilot Flame	Quiet whisper while the pilot flame in on.
Blower / Fan	Air movement that increase and decreases with the speed of the blower. The blower is pushing the heat from the fireplace into the room.
Gas Control Valve	Dull click when turning on or off, this is the valve opening and closing.

Maintenance and Service

Periodically check to ensure that your direct vent system is clean.

Periodically check the pilot and burner. Check to see that all the burner ports are clean and clear. Check the pilot head for blockage. Check to ensure the pilot flame is blue with no or very small yellow tips.

Opening The Door:

Turn unit off and wait until the appliance has cooled down.

1. Open the right hand hinged side flap, which will expose a door fastener. Using a ½" wrench, loosen the fastener.
2. Due to the shape of the bay window door. You must also open the left-hand side flap before attempting to open the door.
3. If the door must be removed open the door and lift the door pins out of the hinges (see figure 6).
4. Ensure the door is properly fastened after cleaning before attempting to re-light the appliance.

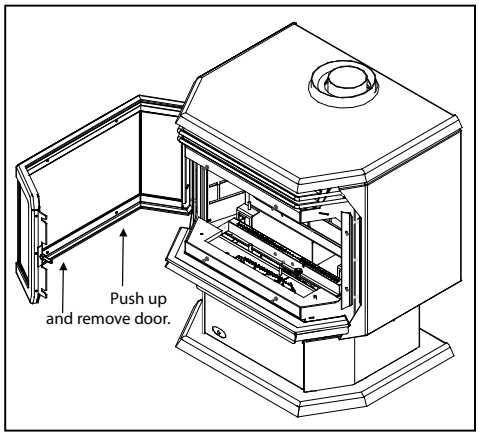


Figure 6: Removing the Door.

Cleaning The Glass:

Allow the glass to cool before cleaning. It will be necessary to clean the ceramic glass periodically. During a cold start up, condensation will sometimes form on the glass. This is a normal condition with all gas fireplaces and stoves. However, this condensation can allow dust and lint to cling to the glass surface. Initial paint curing of the appliance can leave behind a slight film on the glass. This is a temporary problem. It is therefore recommended that the glass be cleaned initially after about the first four hour of use. Depending upon the amount of use, cleaning should be required no more than two or three times per season. To clean the door, use a mild glass cleaner and a soft cloth or a glass cleaner available from your Enviro dealer. Abrasive cleaners will damage the glass.

To Replace Door:

The glass in this appliance is an integral part of the door assembly. If the glass is damaged or broken a replacement inner door with glass assembly must be purchased.

The glass in this appliance is ceramic. If the glass is damaged or broken a factory door with glass replacement must be used.

Remove the door with glass, a new door assembly must be purchased from an ENVIRO dealer (part #: EG28-103). **Do not use a substitute materials; it will void the warranty.**

Cleaning The Inside Of The Firebox:

1. Turn off the unit and allow it to cool down completely.
2. Remove the logs carefully from the firebox. Gently remove the embers and place on a piece of paper towel, until ready to replace.
3. Vacuum the bottom of the firebox thoroughly. Carefully clean off any dust on the logs and remove any lint from the main burner and pilot burner.
4. After carefully replacing the log and embers in their correct positions (see Secondary Installation - Installation of Log Set and Embers), and the door has been resealed, re-light the pilot, following the instructions on the lighting label attached to the unit.

Maintenance and Service

Cleaning Plated Surfaces:

It is important to note that fingerprints and other marks can leave a permanent stain on plated finishes. To avoid this, give the face a quick wipe with denatured alcohol on a soft cloth BEFORE lighting the fireplace. Never clean the face when it is not cool. Do not use other cleaners as they may leave a residue, which can become permanently etched into the surface.

Blower Removal:

The burner may need to be removed for a few reasons, including cleaning under the burner, converting the unit to a different gas type, or to replace the burner altogether. **Proceed only when the unit has completely cooled down.**

1. Remove the door as shown in the Maintenance and Service - Opening The Door.
2. Remove the two (2) T-20 screws that fasten the lower half of the burner bracket to the burner tray, located inside the large hole in the burner (see Figure 7). Do not remove the screws that fasten the upper half of the burner bracket to the burner.
3. Slide the burner to the left then lift the burner assembly up then out.

To re-install the burner follow steps 1-3 in reverse. When placing the burner back in the unit ensure that the venturi box under the burner is lined up.

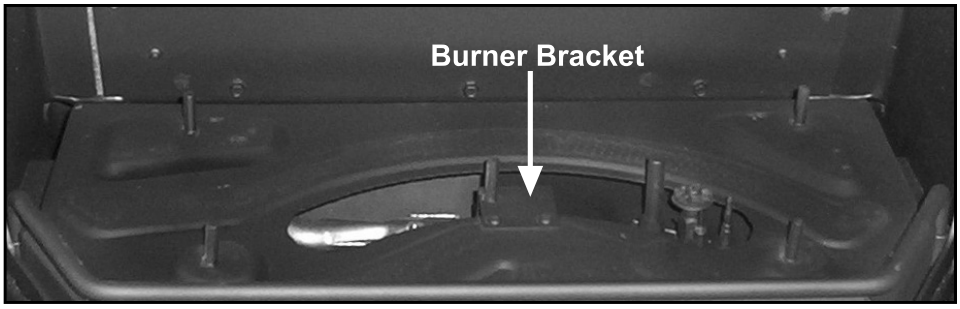


Figure 7: Blower (Fan) Removal.

Blower Removal:

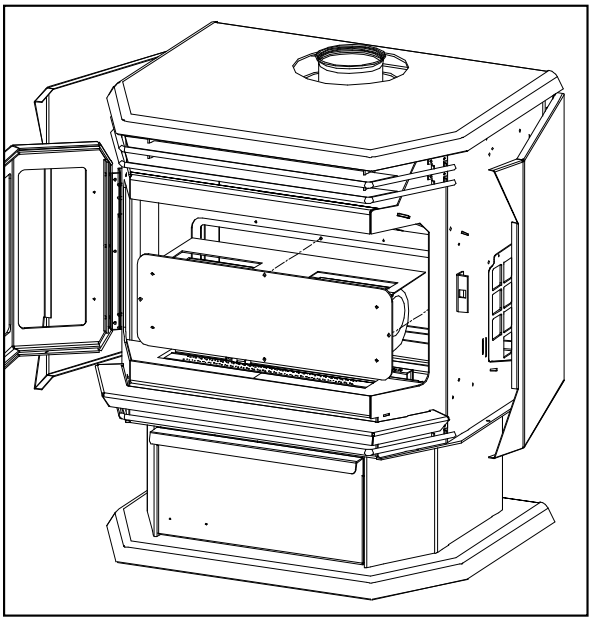


Figure 8: Blower (Fan) Removal.

1. Turn the unit off, allow it to cool down completely, and remove the door as shown in the Maintenance and Service - Opening The Door..
2. Remove the log set carefully.
3. Remove the burner tray assembly, see Maintenance and Service - Burner Removal.
4. Remove the four (4) 5/16" bolts that hold the blower mounting plate to the back firewall. Use a light lubricating oil on screws before removal.
5. Carefully pull the blower assembly into the firebox (see Figure 8) disconnect the blower leads from the harness and remove blower.
6. To re-install, check mounting plate gasket if damaged replace with new one and reverse steps 1 through 4. Refer to "Secondary Installation - Log Set and Embers Installation".

Fuel Conversion:

TO BE INSTALLED BY A QUALIFIED SERVICE AGENCY ONLY

Please read and understand these instructions before installing.

Warning: This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper or complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

Kit Parts List:

1 - Orifice (NG - #43 DMS or LP - #53 DMS)

1 - Pilot Injector (NG 0.62 mm; LP 0.35 mm)

1 - Installation instruction sheet

1 - Conversion label

Carefully inspect all parts supplied with this conversion kit. If any parts have been damaged or are missing, contact your dealer, distributor or courier company to have them replaced before starting this installation.

Conversion Kit Installation:

1. Turn control knob on the gas valve to the "OFF" position and shut the gas supply off at the shut-off valve upstream of the unit. CAUTION: The gas supply must be shut off prior to disconnecting the electrical power and before proceeding with the conversion. Allow the valve and unit to cool down to room temperature.
2. Remove the glass as shown in the Maintenance and Service - Opening The Door.
3. Carefully remove the log set and ember material if they are installed.
4. Remove the burner as shown in the Maintenance and Service - Burner Removal.
5. Convert the burner orifice(s):
   a) Remove the main burner orifice with a ½ inch deep socket.
   b) Put a bead of pipe-thread sealant or approved Teflon tape on the orifice threads before installing into the brass elbow.
   c) Install the new orifice(s) from the kit into the brass elbow.
6. Convert the pilot injector:
   a) Pull the pilot hood straight up to access the pilot injector.
   b) Using a $^{5}/_{32}$" or 4 mm Allen key, remove the pilot injector.
   c) Install the new pilot injector supplied with this conversion kit. Simply screw the new injector inside the pilot hood using the Allen key,
   d) Reinstall the hood by placing the hood on the assembly, line up the key way, and snap into place.

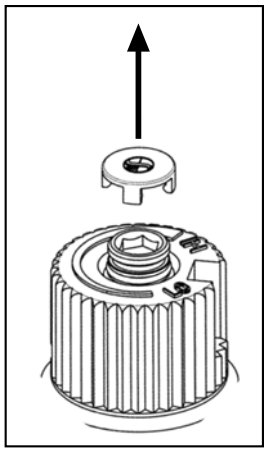


Figure 9: Removing valve cap.

7. Convert the SIT gas valve:
   a) Remove the black protection cap from the HI/LO knob by hand shown in Figure 9.

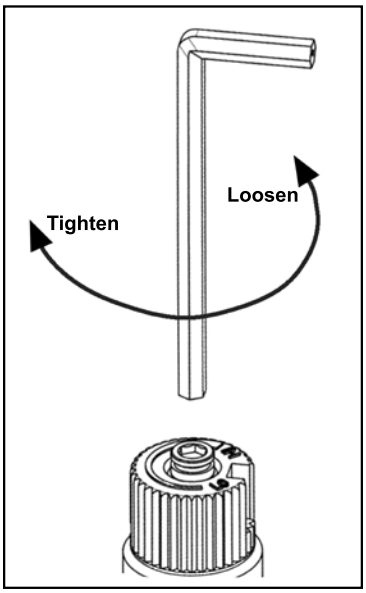


Figure 10: Removing valve screw.

   b) Insert a $^{5}/_{32}$" or 4 mm Allen wrench into the hexagonal key-way of the screw (see Figure 10), rotate it counter-clockwise until it is free and extract it.
   c) Check that the screw is clean and if necessary remove dirt.
   d) Flip the screw (refer to Figure 11).
   e) Using the Allen wrench as shown in Figure 10, rotate the screw clockwise until a torque of 9 inch lbs. **WARNING!** Do not over tighten the screw. It is recommended that you grip the wrench by the short side.
   f) Verify that if the conversion is from NG to LPG, the screw must be re-assembled with the red o-ring visible (refer to Figure 12). If the conversion is from LPG to NG, the red o-ring of the screw must be not visible.

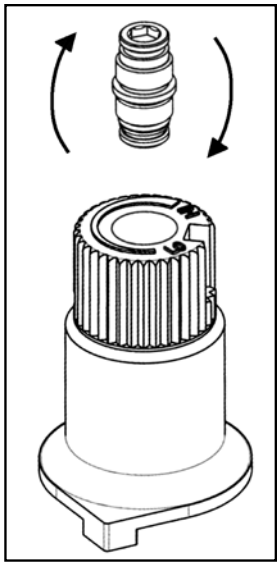


Figure 11: Flip valve screw.

   g) Re-attach the black protection cap that was removed in step a (Figure 9).

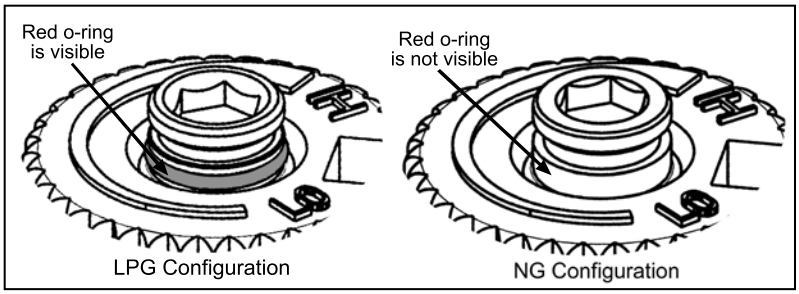


Figure 12: O-ring on valve screw.

8. Reinstall the burner, brick panels, log set, embers, and glass door. Also refer to Secondary Installation - Installing Log Set and Embers. When re-installing the burner, ensure that the pilot hood in in line with the small hole at the edge of front and rear burner. On some units you will need to pay special attention when installing the burner that the venturi adjustment rod is properly installed into the venturi adjustment piece welded to the burner venturi tube
9. Reconnect the main gas line if it was disconnected and open the shut-off valve at the gas line to the unit.
10. Use a small brush to apply a warm soapy water solution to all gas connections (use a half dish soap and half warm water). If a gas leak is present, bubbling will occur. Gas leaks can be repaired by using an approved pipe thread sealant or approved Teflon tape. NEVER USE AN OPEN FLAME WHEN TESTING FOR LEAKS.
11. Reconnect the electrical power to the unit.
12. Relight the main burner in both the "HI" and "LO" positions to verify proper burner ignition and operation and proper flame appearance. Also refer to Secondary Installation - Log Set and Embers Installation for a flame appearance picture.
13. MAKE SURE that the conversion label is installed on or close to the rating label to signify that the unit has been converted to a different fuel type.

Initial Installation

QUALIFIED INSTALLERS ONLY

WARNING:

Operation of this heater when not connected to a properly installed and maintained venting system can result in carbon monoxide (CO) poisoning and possible death.

Preparation For Installation:

- Remove the packaging from the appliance, and check to make sure there is no damage. If damage is found, please report it to both the carrier and your dealer as soon as possible.
- Before beginning, carefully check the glass door and the log set
- Locate a position where the flue system of the stove can be properly installed without damaging the integrity of the building; e.g. cutting a wall or ceiling joist.
- Check stove and flue system clearance requirements.
- Locate the stove where it can be accessed by a gas supply line.
- Locate the stove in a large and open room that is centrally located in the house. This will optimize heat circulation and comfort.
- As the stove is equipped with a convection fan, ensure that an electrical outlet is within 6 ft (1.8 m) of the stove.
- The flow of combustion and ventilation air must not be obstructed.

Clearances to Combustibles:

A. Sidewall to unit	10 inches	(25.4 cm)
B. Backwall to unit	4 inches	(10.2 cm)
C. Corner to unit	2 inches	(5.1 cm)
D. Combustibles to unit top	22 inches	(55.9 cm)
E. Floor to unit	0 inches	(0 cm)
F. Alcove maximum depth:	48 inches	(121.9 cm)

CLEARANCES MUST BE SUFFICIENT TO ALLOW ACCESS FOR MAINTENANCE AND SERVICE.

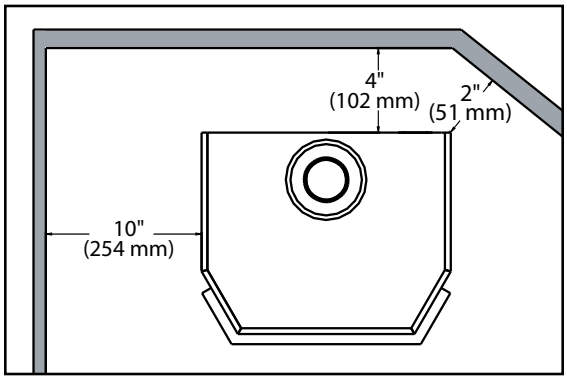


Figure 13: Clearances to combustibles.

Flue Gas Spill Switch:

NOTE: This heater must be properly connected to a venting system. This heater is equipped with a vent safety shutoff system designed to protect against improper venting of combustion products. This safety switch is located on the rear of the appliance close to the drafthood relief opening.

If the switch trips more than once, the chimney should be inspected by a qualified service technician for possible blockage or severe down draught conditions.

Initial Installation

QUALIFIED INSTALLERS ONLY

Venting:

This model must have a vent opening in the rear of the unit. Confirm this and also check that the label on the right side panel door states "Vented Room Heater".

WARNING: This appliance has been designed to operate by drawing combustion air and dilution air from the room. The draft hood located in the same atmospheric pressure zone as the combustion air inlet to the appliance. It is also designed to draw room air for proper heat circulation from the rear of the unit. Blocking or modifying the louvers in any way can create hazardous situations, either through poor venting or by overheating. It is important that this unit has sufficient air circulation for proper venting and combustion thus provisions must be made for the supply of adequate combustion and ventilation air.

WARNING: Operation of this heater when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

THE APPLIANCE CANNOT BE CONNECTED TO A CHIMNEY FLUE SERVICING A SEPARATE SOLID FUEL BURNING APPLIANCE.

Manufacturer's General Venting Guidelines:

This information is compiled by the manufacturer as a very general rule for single appliance venting of the EG28 gas stove with 4 inch Type B gas vent. Refer to the Venting manufacturer's directions for installation.

Venting code and regulations may vary from area to area, please check with the local, state/provincial codes regarding the suitability of your application.

For other special venting requirements, please refer to the local, state/provincial or national codes.

The venting system should be assembled and installed according to the vent manufacturer's instructions and the local, state/provincial or national codes.

General Venting For The EG28:

This stove should be vented by certified 4" (10 cm) Type B Gas Vent or a flexible gas vent liner that may be encased in 6" (15 cm) decorative stove pipe. The flue collar of the appliance will fit inside of standard vent and may be fastened directly to the vent.

The ENVIRO incorporates its own internal draft hood, so no additional external draft hood is required.

Check periodically that the vent is unrestricted and an adequate draught is present when the unit is in operation.

Initial Installation

QUALIFIED INSTALLERS ONLY

Termination:

The bottom of the vent cap shall extend at least 2 feet (0.61 m) above the highest point of the roof where it passes through and at least 2 feet (0.61 m) higher than any portion of the roof within a horizontal distance of 10 feet (3.1 m).

See vent manufacturer's instructions for vent system clearances to combustibles and vent terminal clearance from roof.

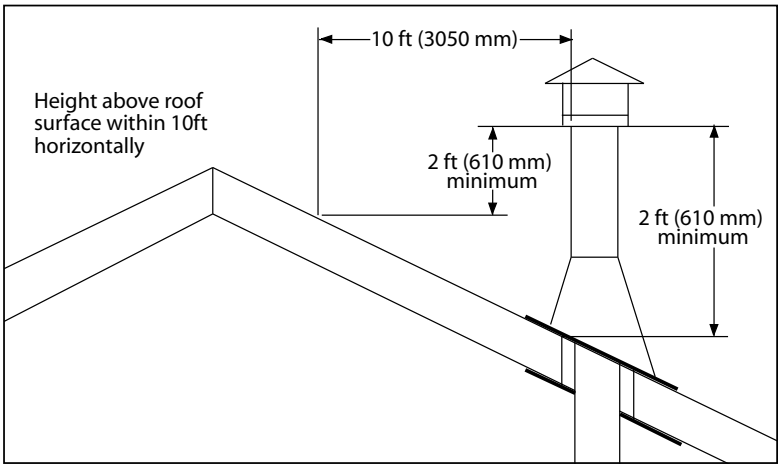


Figure 14: Height of Vertical Termination.

Installation Into An Existing Chimney:

This basic venting configuration shown are rough guidelines only. Follow national and local codes for other installation options.

Measure the height of the chimney beforehand and purchase the appropriate kit. Never attempt to over stretch a flexible liner to accommodate the height of the chimney.

- Any flue damper must be removed or locked permanently in the open position.
- The chimney must be clean, in good working order and constructed out of non-combustible materials.
- Make sure that all chimney clean-outs are tightly fitting and will not permit air to leak into the chimney.
- Make all gas connections and check for leaks.

See vent manufacturer's instructions for vent system clearances to combustibles and vent terminal clearance from roof.

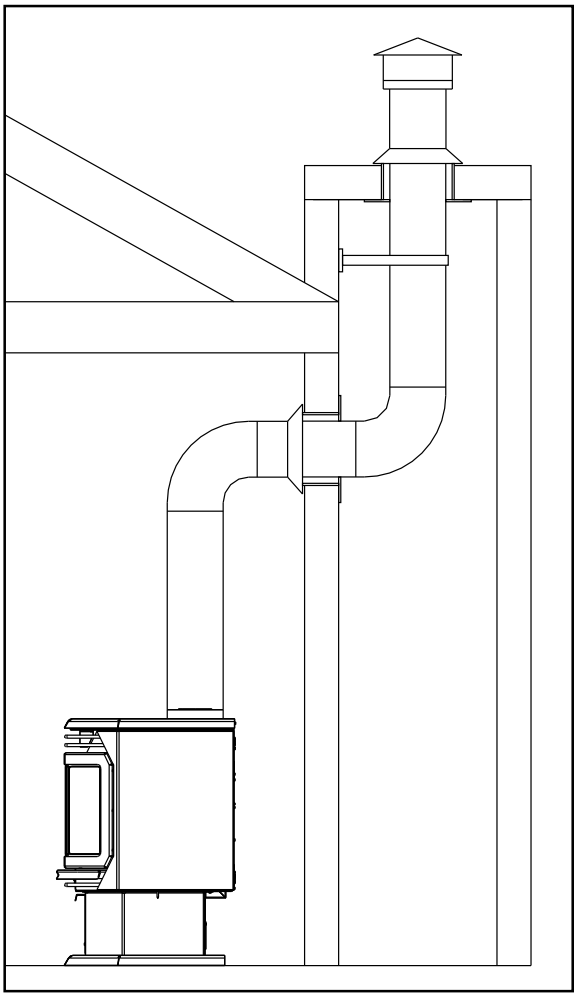


Figure 15: Installation into an existing chimney.

Straight Vertical Installation:

This basic venting configuration shown are rough guidelines only. Follow national and local codes for other installation options.

For the best venting performance, we recommend a total vent height in the range of 10 feet (3.0 m) to 30 feet (9.1 m). The total horizontal length depends on the number of elbows used; a 90° elbow accounts for 5 feet (1.5 m) of the horizontal run.

The venting should never slope down, a minimum ¼ inch (0.6 cm) rise is needed for every 2 feet (61 cm) of horizontal is recommended.

If practical, it is best to locate the appliance to permit the use of shorter horizontals and fewer elbows.

Table 3. 90° elbows allowed verses the horizontal length.

Number of 90° elbows	Maximum total horizontal length allowed
2	20 feet (6.1 m)
3	13 feet (4.0 m)
4	6 feet (1.8 m)
5	0 feet (0 m)

Note: Using two (2) 45° elbows is equivalent to using one (1) 90° elbow.

The venting rise should be a minimum of 1 foot (0.31 m) from the top of the unit before any horizontal run are used.

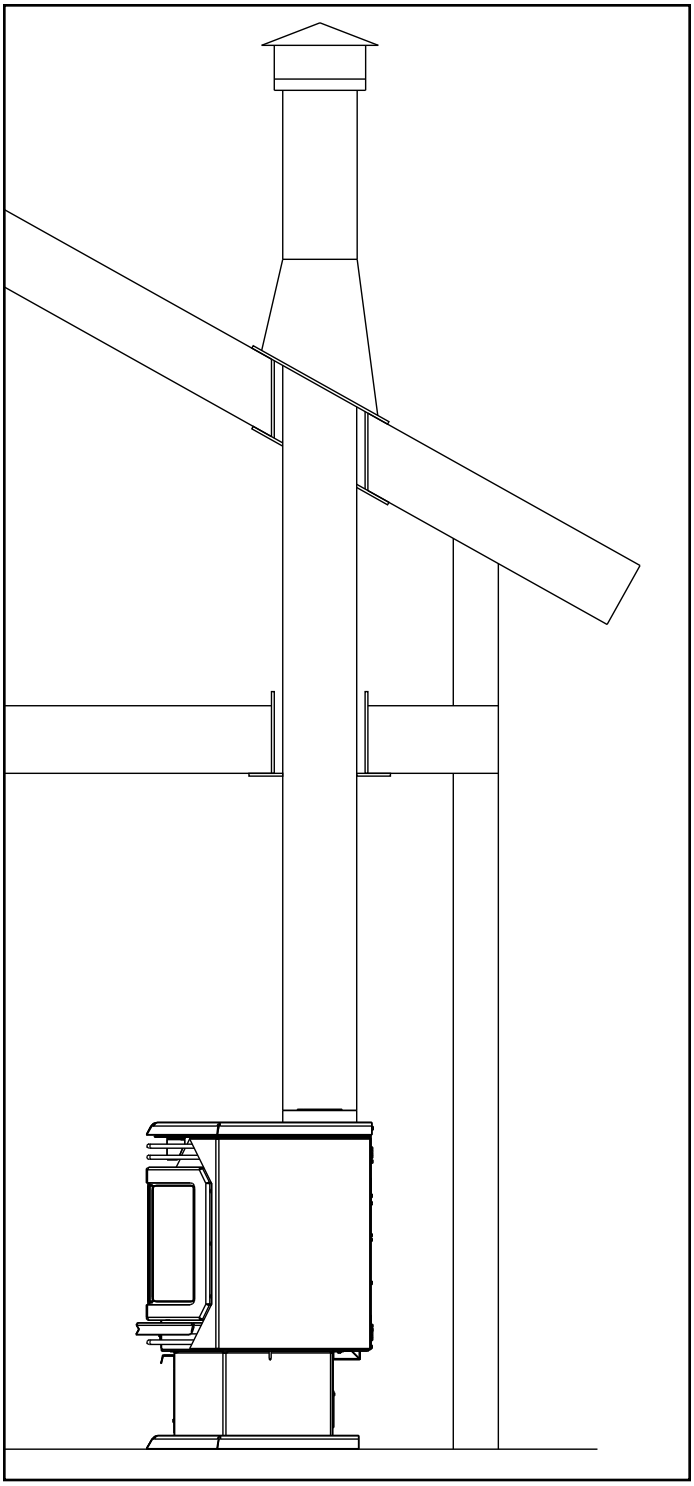


Figure 16: Straight vertical installation.

Initial Installation

QUALIFIED INSTALLERS ONLY

Electrical Requirements:

The **ENVIRO** EG28 will operate without electrical power. This model has a millivolt gas control, which uses the pilot flame to generate enough electricity to operate the main burners. The appliance is equipped with a blower and must be electrically connected and grounded in accordance with local codes or in the absence of local codes, with the current CSA C22.1 CANADIAN ELECTRICAL CODE Part 1, SAFETY STANDARDS FOR ELECTRICAL INSTALLATIONS, OR THE NATIONAL ELECTRICAL CODE ANSI / NFPA 70 in the U.S.

WARNING: Electrical grounding instructions. This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard, and must be plugged directly into a properly grounded three-prong outlet.

DO NOT cut or remove the grounding prong from this plug.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

NOTE:

- Operation of the fan increases the efficiency and the heat output of the appliance.
- The thermostat connects to the two purple wires in the harness
- Control panel light uses a 7 Watt max. bulb

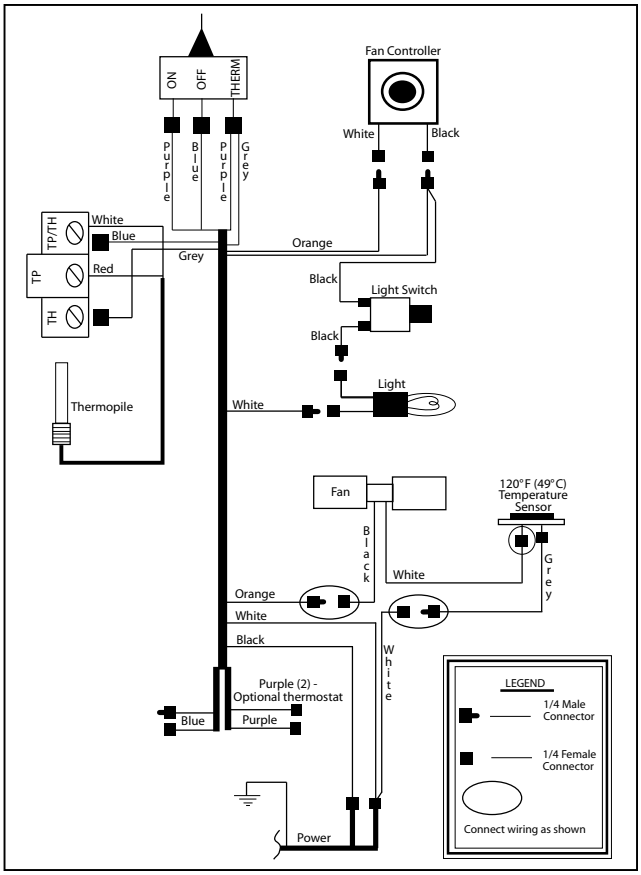


Figure 17: EG28 BV Wiring Diagram.

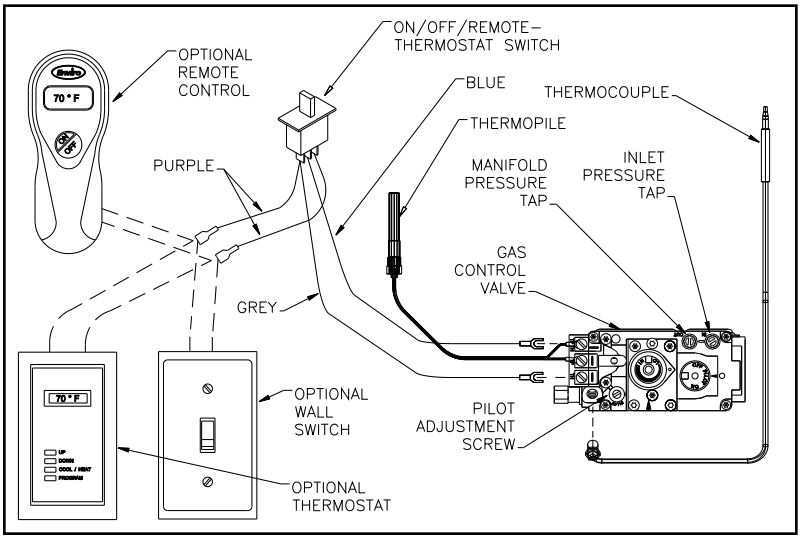


Figure 18: Wiring of a Thermostat

- **If the unit is installed in a Mobile Home it must be connected to a grounding rod.**
- **If the unit is installed in a Mobile Home it must be bolted securely to the floor.**

Table 4. Recommended Thermostat Wire Size.

Wire Size	Max. Length
14 gauge	100 ft (30.48 m)
16 gauge	60 ft (18.29 m)
18 gauge	40 ft (12.00 m)
20 gauge	25 ft (7.62 m)
22 gauge	18 ft (5.49 m)

Initial Installation

Gas Line Connection and Testing:

WARNING: Only persons licensed to work with gas piping may make the necessary gas connections to this appliance.

GAS LINE CONNECTION

- This stove is equipped with a certified flexible pipe located on the right side of the unit terminating in a ⅜" male NPT fitting. Consult your local authorities codes or the CAN/CGA B 149 (1 or 2) installation code in Canada, or in the USA gas installations follow either local codes or the current edition of the National Fuel Gas Code ANSI Z223.1.
- The efficiency rating of this appliance is a product thermal efficiency rating determined under continuous operating conditions and was determined independently of any installed system.

The appliance and its shutoff valves must be disconnected from the gas supply piping system during any pressure testing where the pressure exceeds ½ PSIG (3.45 KPa) or damage will occur to the valve.

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ psig (3.45 KPa).

Always check for gas leaks with a soap and water solution after completing the required pressure test.

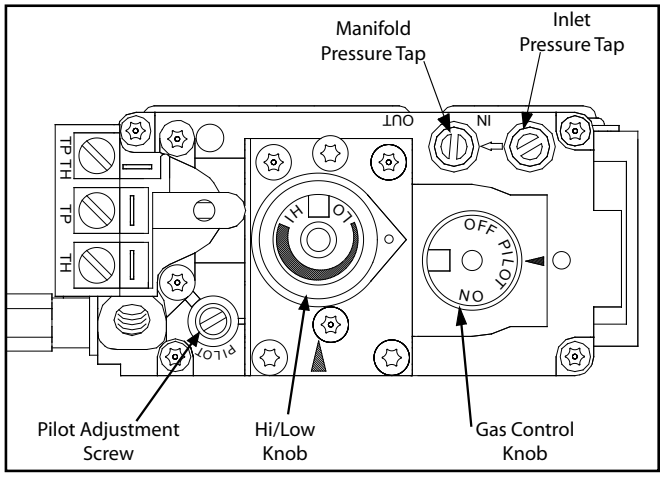


Figure 19: Fully Labeled Gas Valve.

TO TEST VALVE PRESSURES

The pressure taps are located on the left side of the valve
- Turn set screw 1 turn counter clockwise to loosen,
- Place 5/16" (8 mm) I.D. hose over pressure tap system.
- Check pressures using a manometer.
- When finished, release pressure, remove hose & tighten setscrew.

Table 5: Pressure and BTU Information.

	Natural Gas	Propane
Main Orifice	#43 DMS	#53 DMS
Manifold Pressure	3.8" W.C. (0.95 KPa)	11.0" W.C. (2.74 KPa)
Min. Manifold Pressure	1.1" W.C. (0.27 KPa)	2.7" W.C. (0.67 KPa)
Max Supply Pressure	7.0" W.C. (1.74 KPa)	12.0" W.C. (2.98 KPa)
Min. Supply Pressure	5.0" W.C. (1.25 KPa)	11.5" W.C. (2.86 KPa)
Max BTU/hr Input	26,500 BTU/hr (7.87 KW)	26,500 BTU/hr (7.87 KW)
Min. BTU/hr Input	13,500 BTU/hr (3.9 KW)	13,500 BTU/hr (3.9 KW)

NEVER USE AN OPEN FLAME FOR LEAK TESTING.

Secondary Installation

Installation of Log Set and Embers:

The placement of the logs is not arbitrary. If they are positioned incorrectly, the flames can be "pinched" and will not burn correctly. The burner come with five (5) locator pins and two (2) resing areas, which make alignment easier. Using the pictures provided, carefully set the logs in place.

NOTE: The logs are fragile and should be handled gently.

Figure 20: Step 1 of Log Placement.

Figure 21: Step 2 of Log Placement.

CAUTION: Use only the type of ember material supplied with this appliance. Due to the irregular size of the ember material there may be more than required. The use of other foreign materials on the burners may create dangerous conditions.

If over time, through cleaning and servicing, these embers require replacement, contact the nearest ENVIRO dealer for replacement embers.

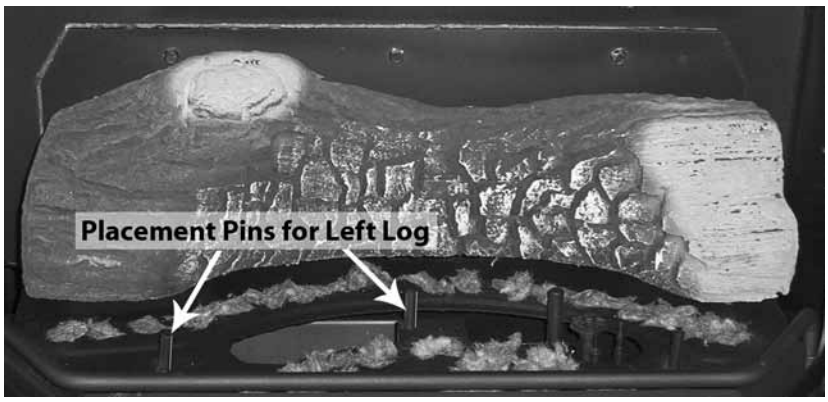


Figure 22: Step 3 of Log Placement.

1. The embers can be place before or after the logs are placed. A bag of ceramic fiber embers and rock wool embers is provided gently remove the ember material from the plastic bag. Spread a layer loosely in a random manner across the burner tray. Do not allow any embers to rest against pilot assembly. (See Figure 13 or 16 for proper ember placement.)

DO NOT pack this ember material as this could create an unsafe condition, leave embers loose

2. Carefully remove logs from box. Check to ensure there is no damage. It is very important to install all logs in their proper position to insure safe, optimum operating conditions.

Figure 23: Step 4 of Log Placement.

3. Place the log set into the firebox. Locate each log by seating it down onto the burner tray support pins. Follow Figures 11 to 16 proper log placement.

4. Upon the first light up, watch for ignition to **ALL** burner ports. If a long delay is noted: First, wait for the appliance to cool down.

- Open the front door of the appliance.
- Check to carefully reposition the embers making sure that burner ports are not plugged solid or blocked.

Figure 24: Step 5 of Log Placement.

Figure 25: Log Placement with Embers.

Figure 26: Appliance Burning.

CAUTION: NEVER OPERATE THIS APPLIANCE WITH THE GLASS DOOR REMOVED.

Trouble Shooting

Problem	Possible Cause	Solution
The main burner does not ignite when called for.	The gas valve may not be on.	• Check that the gas control knob is in the "ON" position.
	Thermostat is not calling for heat.	• Adjust the thermostat several degrees above ambient temperature.
	Problem with gas valve.	• Use a DC voltmeter to measure the voltage across the TPTH and TP terminals. Main operator voltage: Open circuit ≥ 325mV Closed circuit ≥ 100mV • If voltage is not present, check the control circuit for proper operation. • If proper control system voltage is present, replace the gas control.
Spark will not light the pilot after repeatedly pressing the spark ignitor.	Defective piezo ignitor.	• Check connections to ignitor. • If ignitor connections are good but no spark, replace ignitor.
	Broken spark electrode.	• Check for broken ceramic insulation, replace electrode if broken.
	Misaligned spark electrode.	• If spark is not arcing from electrode to pilot, loosen the screws on the pilot base adjust and tighten.
Pilot will not remain lit.	Problem with thermocouple circuit.	• Check for proper connection of the thermocouple to the rear of the valve. If loose, fully tighten. • Check pilot for full flame impingement around thermocouple. If flame is too small, check gas pressure, adjust pilot rate screw, check pilot head for damage. • Check thermocouple voltage at valve. It must be greater than 5 mV. If low, replace thermocouple.
	Air in gas line (pilot dies while knob is depressed).	• Bleed line. • Check gas line pressure. • Contact dealer.
Burners will not remain lit.	Problem with thermopile circuit.	• Check gas line pressure . • Check for flame impingement on thermopile. If low, see "Pilot will not remain lit". • Check thermopile for minimum of 300 mV when burner is switched on. • Check wiring to thermostat for breaks. **BV ONLY:** Check for spillage at draft hood that may trip spill switch
Flame lifting	Leak in vent pipe	• Check for leaks in vent connections.
	Improper vent configuration	• Check vent configuration with manual.
	Terminal may be recirculating flue gases	• Check to see if terminal is on correctly. • May need to install high wind termination cap. • Contact dealer.
Glass fogs up	Normal Condition: after the appliance warms up the glass will clear. **Due to additives in gas, glass may get hazy during operation** Clean as needed.	
Blue Flames	Normal during start up: flames will yellow as the fireplace heats up.	
Flames are burning "dirty" or sooting	Flame impingement	• Check log positioning. • Increase primary air by opening the venturi shutter and/or by opening the vent restrictor. See also "Burners will not remain lit."
Remote control doesn't work	Problem with the remote	• One or more of the batteries are dead. See remote control instructions.
	Problem with fireplace	• The on/off switch is turned to OFF. • The gas control valve is turned to PILOT or OFF. • The pilot has gone out.
BV ONLY: Insufficient air for combustion	• Air tight house. • A vacuum in room due to other air-moving device.	• Supply make up air to the unit.

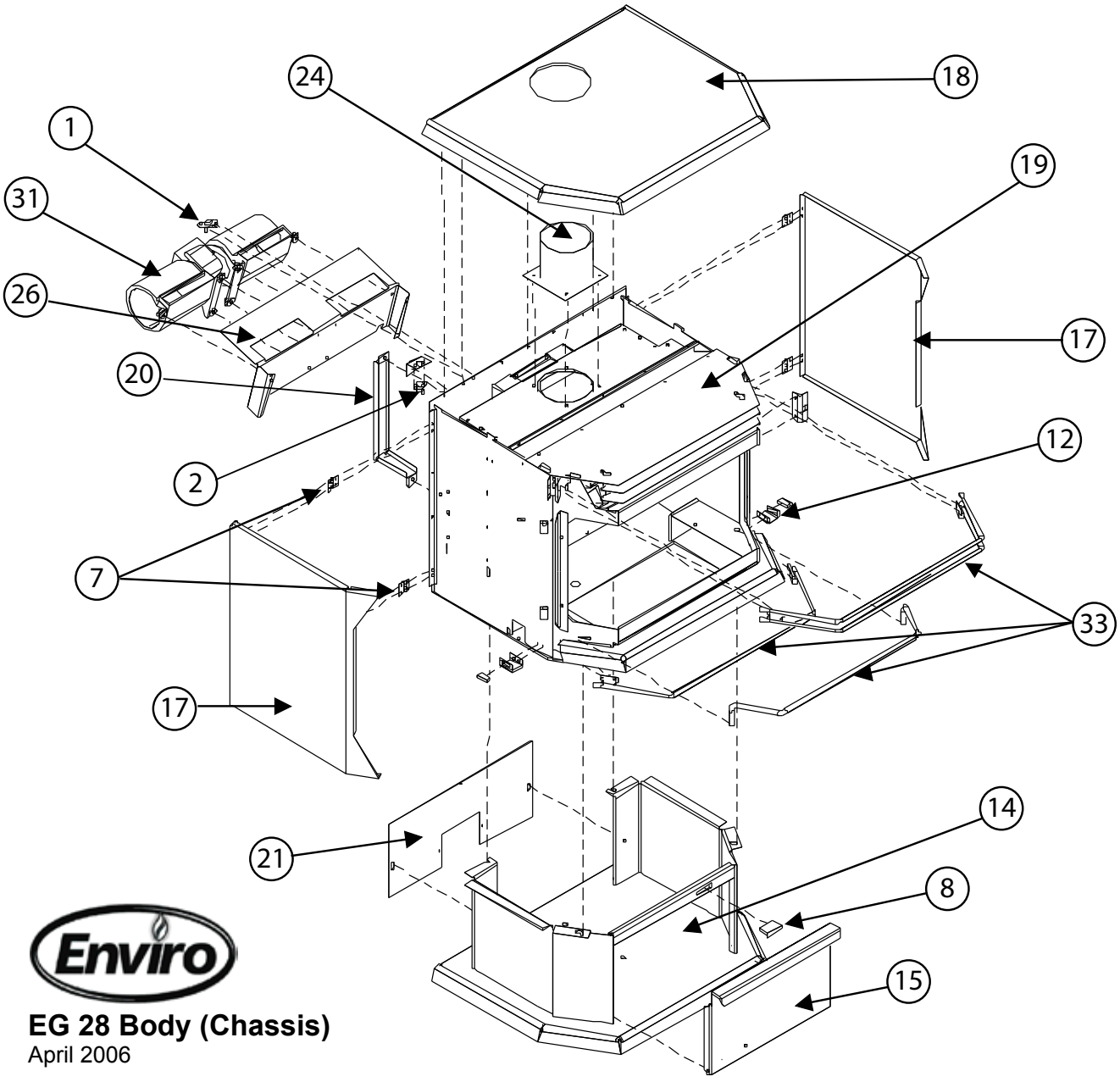
Parts List

Reference Number	Part Description	Part Number
1	120°F (49°C) Ceramic Temperature Sensor	EC-001
2	Spill Switch 220°F (121°C)	EC-002
3	Thermocouple	EC-009
3	Spark Electrode with Cable	EC-011
3	Thermopile	EC-012
3	Pilot NG with Electrode	EC-013
3	Pilot LP with Electrode	EC-014
3	Fully Assembled Pilot NG	EC-015
3	Fully Assembled Pilot LP	EC-016
3	Pilot Orifice NG	EC-019
3	Pilot Orifice LP	EC-020
	Pilot Gasket	EC-021
4	S.I.T. Piezo Ignitor	EC-023
	Stainless Steel Flex Connector with 3/8" Elbow 18" Long	EC-024
5	Burner Switch	EC-025
	Fan Access Cover Gasket	EC-029
6	Miniature Light Bulb - 115V	EC-031
6	Light Bulb Holder	EC-032
	Wiring Harness Complete (2 pieces)	EC-037
	Burner Wiring Harness	EC-037A
	Body Wiring Harness	EC-037B
	Fan Controller Knob	EC-040
	IEC Power Cord - 115 V	EC-043
	4oz Bag Coal Embers Only	EC-045
	Log Set with Embers	EC-048
	Aluminum Manifold	EC-049
7	1" x 1" Side Cabinet Hinge	EC-054
8	Pedestal Door Magnet	EC-056
	3/8" Tadpole Door Gasket (7 feet)	EC-057
9	Door Latch Bolt	EC-059
	Fan Impeller	EC-064
	Door Nut Mounting Bracket	EC-065
10	Light Switch	EC-066
11	Fan Controller with Knob - 115V	EF-045
12	Side Panel Magnet Bracket	EG28-027
	Envirogas EG28 Name Plate	EG28-076
	Latch Bracket and Nut	EG28-095
13	Complete Inner Door with Glass	EG28-103
14	Pedestal	EG28-108
15	Pedestal Door	EG28-109

Parts List

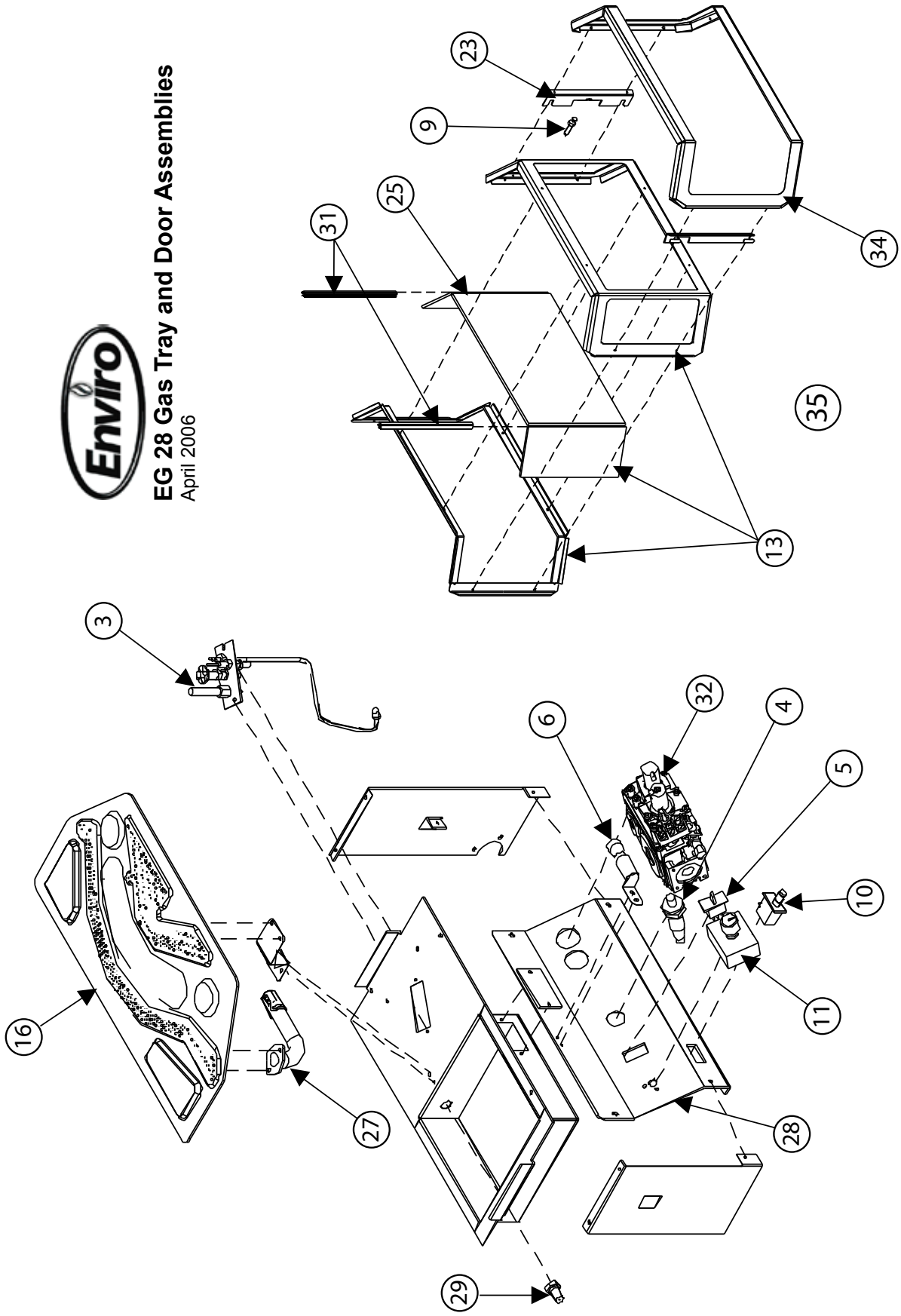
Reference Number	Part Description	Part Number
16	Burner Tray Top	EG28-116A
	BV Owner's Manual	EG28-121
17	Cabinet Side Panel	EG28-123
18	BV Stove Top	EG28-124
	Firebox Baffle	EG28-125
	Fan Kit	EG28-127
19	BV Top Baffle	EG28-132
20	Wire Channel	EG28-139
	Pedestal Wiring Plate	EG28-140
21	Pedestal Back	EG28-141
22	Ash Shelf	EG28-150
	Door Hinge Bracket	EG28-161
23	Door Latch Bracket	EG28-162
24	BV 4" Crimped Flue Pipe	EG28-169
25	Glass Set with Gasket	EG28-205
	Thermocouple Pilot Nut	EG28-210
26	Fan Mounting Bracket	EG28-304
27	Venturi	EG31-099
	Control Panel Decal	30-044
	Rear Exterior Back Panel	30-045
28	Control Panel Front and Decal	30-069
	Blower Mount Screws (4)	50-086
29	Blank Orifice #74	50-343
30	Glass Extrusions (set of 2)	50-483
31	Convection Blower - 115V (no mount)	50-512
	16" Ignitor Wire	50-652
32	S.I.T. NOVA Valve Convertible	50-1421
	Conversion Kit LP To NG Convertible	50-1430
	Conversion Kit NG To LP Convertible	50-1431
	S.I.T. Valve Conversion Screw with O-ring	50-1450
	S.I.T. Valve Conversion Screw Cap	50-1451
33	Bar Set (4 Pieces) - Nickel	50-475
33	Bar Set (4 Pieces) - Painted	EG28-152
33	Bar Set (4 Pieces) - Gold	EG28-153
34	Door Cover - Gold	50-476
34	Door Cover - Painted	50-757
34	Door Cover - Brushed Nickel	50-1064
35	Door Assembly with Glass (A+B) - Brushed Nickel	50-1065
35	Door Assembly with Glass (A+B) - Painted	EG28-099
35	Door Assembly with Glass (A+B) - Gold	EG28-101

Parts Diagram - Chassis



EG 28 Body (Chassis)
April 2006

Parts Diagram - Gas Tray & Door



Warranty for Enviro **Gas** Products

Sherwood Industries Ltd. ("Sherwood") hereby warrants, subject to the terms and conditions herein set forth, this product against defects in material and workmanship during the specified warranty period starting from the date of original purchase at retail. In the event of a defect of material or workmanship during the specified warranty period, Sherwood reserves the right to make repairs or to assess the replacement of a defective product at Sherwood's factory. The shipping costs are to be paid by the consumer. All warranties by Sherwood are set forth herein and no claim shall be made against Sherwood on any oral warranty or representation.

Conditions

- A completed warranty registration must be submitted to Sherwood within 90 days of original purchase via the online warranty registration page or via the mail-in warranty registration card provided. Have the installer fill in the installation data sheet in the back of the manual for warranty and future reference.
- This warranty applies only to the original owner in the original location from date of install.
- The unit must have been properly installed by a qualified technician or installer, and must meet all local and national building code requirements.
- The warranty does not cover removal and re-installation costs.
- Sherwood Industries Ltd. reserves the right to make changes without notice.
- Sherwood Industries Ltd. and its employees or representatives will not assume any damages, either directly or indirectly caused by improper usage, operation, installation, servicing or maintenance of this appliance.
- A proof of original purchase must be provided by you or the dealer including serial number.

Exclusions

An expanded list of exclusions is available at www.enviro.com/help/warranty.html

This warranty does not cover:

- Damage as a result of improper usage or abuse.
- Damage caused from over-firing due to incorrect setup or tampering.
- Damage caused by incorrect installation.

To the Dealer

- Provide name, address and telephone number of purchaser and date of purchase.
- Provide date of purchase. Name of installer and dealer. Serial number of the appliance. Nature of complaint, defects or malfunction, description and part # of any parts replaced.
- Pictures or return of damaged or defective product may be required.

To the Distributor

- Sign and verify that work and information are correct.

Sherwood Industries Ltd.
6782 Oldfield Road, Victoria, BC . Canada V8M 2A3
Online warranty registration: www.enviro.com/warranty/

Category	One Year	Two Year	Limited Lifetime (7yr)
Parts [1] (unit serial number required)		✔	
Firebox Liner Panels (excluding porcelain)		Ceramic	Steel
Firebox			✔
Heat Exchanger			✔
Burner			✔
Ceramic Logs [2]			✔
Ceramic Glass [3]	✔		
Pedestal / Legs (excluding finish)			✔
Door Assembly			✔
Surround Panels (excluding finish)			✔
Exterior Panels (excluding finish)			Up to 5 years
Electrical Components		✔	
Exterior Surface Finishing [4]	✔		
Labour	✔		

[1] Whereas warranty has expired, replacement parts will be warrantied for 90 days from part purchase date. Labour not included. Unit serial number required.

[2] Log set and panels excludes wear and tear or breakage caused by cleaning or service.

[3] Glass is covered for thermal breakage. Photos of box, inside of door, and unit serial # must be supplied for breakage due to shipping.

[4] Exterior Surface finishing covers plating, enamel or paint and excludes colour changes, chipping, and fingerprints.

Travel costs not included.

Installation Data Sheet

The following information must be recorded by the installer for warranty purposes and future reference.

NAME OF OWNER:

_____

ADDRESS:

_____

_____

_____

PHONE:_____

NAME OF DEALER:

_____

ADDRESS:

_____

_____

_____

PHONE:_____

MODEL:_____

SERIAL NUMBER:_____

DATE OF PURCHASE: _____ (dd/mm/yyyy)

DATE OF INSTALLATION:_____(dd/mm/yyyy)

☐ NATURAL GAS (NAT) ☐ PROPANE(LPG)

INLET GAS PRESSURE:_____in wc

MAIN BURNER ORIFICE:_____# DMS

PILOT ORIFICE #_____OR_____in diam.

INSTALLER'S SIGNATURE:

_____

NAME OF INSTALLER:

_____

ADDRESS:

_____

_____

_____

PHONE:_____

MANUFACTURED BY:
SHERWOOD INDUSTRIES LTD.
6782 OLDFIELD RD. SAANICHTON, BC, CANADA V8M 2A3
www.enviro.com
January 22, 2013
C-13841